



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

*Am*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/693,369	10/20/2000	Joel E. Short	42253/205	8237

826 7590 06/03/2005

ALSTON & BIRD LLP  
BANK OF AMERICA PLAZA  
101 SOUTH TRYON STREET, SUITE 4000  
CHARLOTTE, NC 28280-4000

EXAMINER

CALLAHAN, PAUL E

ART UNIT PAPER NUMBER

2137

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/693,369	<b>Applicant(s)</b> DICKENSON	
	<b>Examiner</b> Paul Callahan	<b>Art Unit</b> 2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-10,12-14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-10,12-14,16 and 17 is/are rejected.
- 7) ☒ Claim(s) 18-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 1-20 were pending in the Application at the time of the previous Office Action. Claims 5, 11, and 15 have been cancelled via the latest amendment. Therefore claims 1-4, 6-10, 12-14, and 16-20 are pending in the application and have been examined.

### **Drawings**

2. The drawings were received on 1-25-2005. These drawings are acceptable.

### ***Allowable Subject Matter***

3. The indicated allowability of claim 5 written in independent form so as to incorporate its base claim and all intervening claims is withdrawn in view of the newly applied art found infra. Rejections based on the newly cited reference(s) follow.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6-10, 12-14, 16, and 17 are rejected under 35 U.S.C. 103(a) as being obvious in view of Malkin, "Dial-in Virtual Private Networks Using Layer 3 Tunneling",

IEEE, 11/1997, and Bots et al., International Application PCT/US98/12229, 12 June 1997.

As for claims 1, 6, and 7, Malkin teaches a method for dynamically creating a tunnel in a communications network to provide subscribers host access to a network service (Introduction, p.555), comprising: storing a subscriber profile in a network database (Sec. 3. Operational Algorithm, page 556, paragraph 5), wherein the subscriber profile includes subscriber-specific network service tunneling requirements (Sec. 3. Operational Algorithm, page 556, paragraphs 4, 5: "FQDN", Fig. 2 step 5); receiving at a network device a first subscriber data packet associated with a first network service (Sec. 3. Operational Algorithm, page 556, paragraphs 4,5); accessing the subscriber profile to determine if the first network service has a subscriber-specific tunneling requirement; and creating a first tunnel if a determination is made that the subscriber profile requires a first network service tunnel (Sec. 3. Operational Algorithm page 556, fig. 4 steps 4, 5), wherein the first tunnel has a first end point at the network device and a second end point at the first network service (Sec. 3 Operational Algorithm, page 556, paragraphs 4,5). Malkin does not teach receiving at the network device a second subscriber data packet associated with a second network device, accessing the subscriber profile to determine if the second network service has a subscriber-specific tunneling requirement, and creating a second tunnel if a determination is made that the subscriber profile requires a second network service tunnel, wherein the second tunnel has a first end point at the network device and a

Art Unit: 2137

second endpoint at the second network service and coexists simultaneously with the first tunnel. However Bots does teach these features at page 11, lines 1-19, and page 12 lines 1-20. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features into the system of Malkin. It would have been desirable to do so since the ability to handle multiple subscribers with differing tunneling requirements would increase the utility of the system.

As for claim 2, Malkin teaches the method of Claim 1, wherein storing a subscriber profile comprises storing at least one parameter chosen from the group consisting of the network access identifier, a user/subscriber name and a user/subscriber password (Sec. 3 Operational Algorithm, page 556 bottom, fig. 2 step 5).

As for claim 3, Malkin teaches the method of Claim 1, further comprising determining if a first tunnel between the network device and the first network service pre-exists prior to creating the tunnel between the network device and the first network service (Sec. 3 Operational Algorithm, page 556, paragraph 5, fig. 2 step 4).

As for claim 4, Malkin teaches the method of Claim 1, wherein more than one subscriber accessing the communication network through the network device can simultaneously transmit data packets to the first network service via the first tunnel (Sec. 6.2 Maximum User Count, page 559, 2<sup>nd</sup> paragraph).

Claims 9 and 10 represent the apparatus carrying out the method of claims 1-3, and are rejected on the same basis as those claims.

As for claims 8 and 12, Malkin teaches a network device that dynamically creates a tunnel in a communications network to provide a subscriber host access to a destination network (Sec. 1: Introduction pages 555-556), comprising: a processor that receives from a subscriber a data packet associated with a network service (Sec. 3: Operational Algorithm, page 556, paragraphs 2-4); a database accessed by the processor that stores a subscriber profile that defines the tunnel requirements for the network service (Sec. 3: Operational Algorithm, page 556, paragraphs 2-4); and a tunnel management module implemented by the processor that communicates with the database to determine if the subscriber requires a tunnel for access to the network service and, if a determination is made that the tunnel is required, the tunnel management module creates a tunnel access session between the network device and the network service (Sec. 3: Operational Algorithm, page 556, paragraphs 2-4, fig. 4 steps 4, 5 ). Malkin does not teach a tunnel management module that is capable of creating more than one tunnel access session for simultaneous access session for simultaneous subscriber access to more than one network service where more than one subscriber accessing the communications network through the network device can simultaneously transmit data packets to the first network service via the first tunnel and the second network service via the second tunnel. However Bots does teach these

Art Unit: 2137

features at page 11, lines 1-19, and page 12 lines 1-20. Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate these features into the system of Malkin. It would have been desirable to do so since the ability to handle multiple subscribers with differing tunneling requirements would increase the utility of the system

As for claim 13, Malkin teaches the network device of Claim 12, further comprising a session management module implemented by the processor that communicates with the database to manage the tunnel access session provided by the network device (Sec. 3: Operational Algorithm, page 557, right-hand column, fig. 2, step 8).

As for claim 14, Malkin teaches the network device of Claim 12, wherein the tunnel management module determines if a tunnel between the network device and the network service pre-exists prior to creating the tunnel between the network device and the network service (Sec. 3: Operational Algorithm, page 556, paragraph 4, fig. 2, steps 4).

As for claim 16, Malkin teaches the network device of Claim 12, wherein the tunnel management module is capable of providing simultaneous access to the tunnel access session to more than one subscriber accessing the communication network through the network device (Sec. 6.2 Maximum User Count, page 559, 2<sup>nd</sup> paragraph).

As for claim 17, Malkin teaches the network device of Claim 16, further comprising a session management module implemented by the processor that communicates with the database to manage the simultaneous tunnel access session provided to more than one subscriber accessing the communication network through the network device (Sec. 6.2 Maximum User Count, page 559, 2<sup>nd</sup> paragraph).

7. Claims 18-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following US Patent documents disclose similar network tunneling protocols to the instant application:

Feder et al. 6,804,777

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul E. Callahan whose telephone number is (703) 305-1336. The examiner can normally be reached on M-F from 9 to 5.

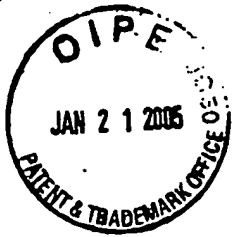


Art Unit: 2137

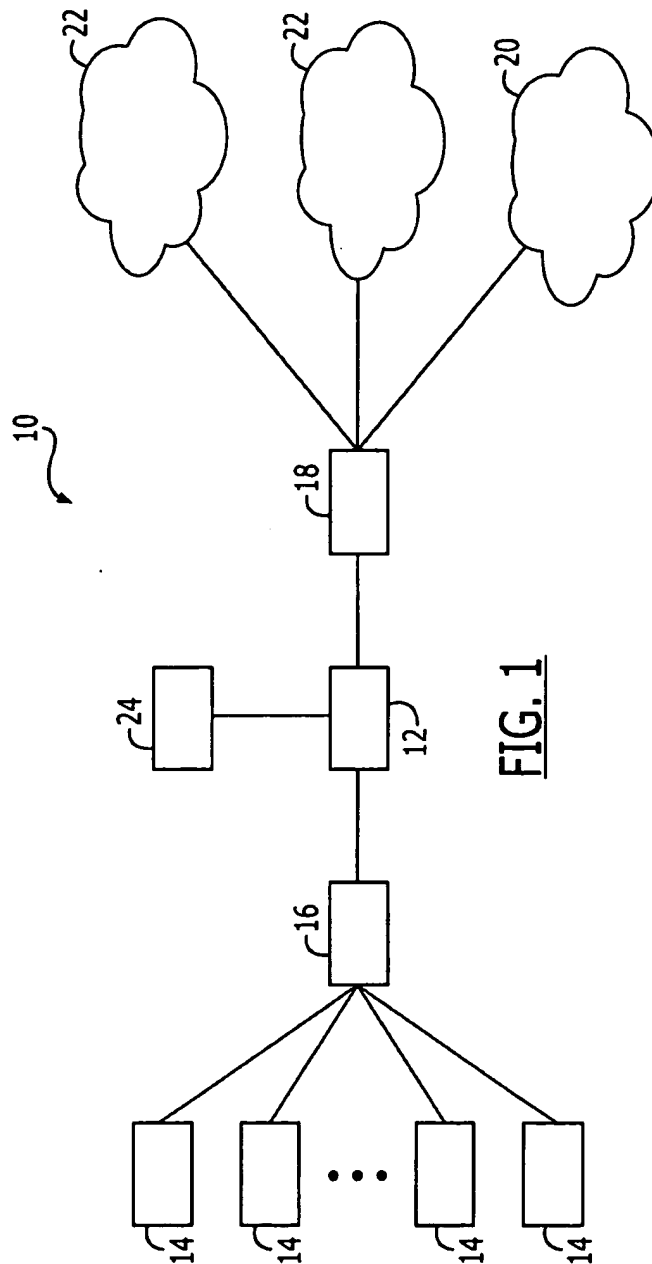
If attempts to reach the examiner by telephone are unsuccessful, the Examiner's supervisor, Andrew Caldwell, can be reached on (703) 306-3036. The fax phone number for the organization where this application or proceeding is assigned is: (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

5/29/05

*Paul Callahan*



O.I.C.  
to enter  
P.C. 5/27/05



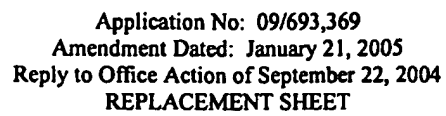
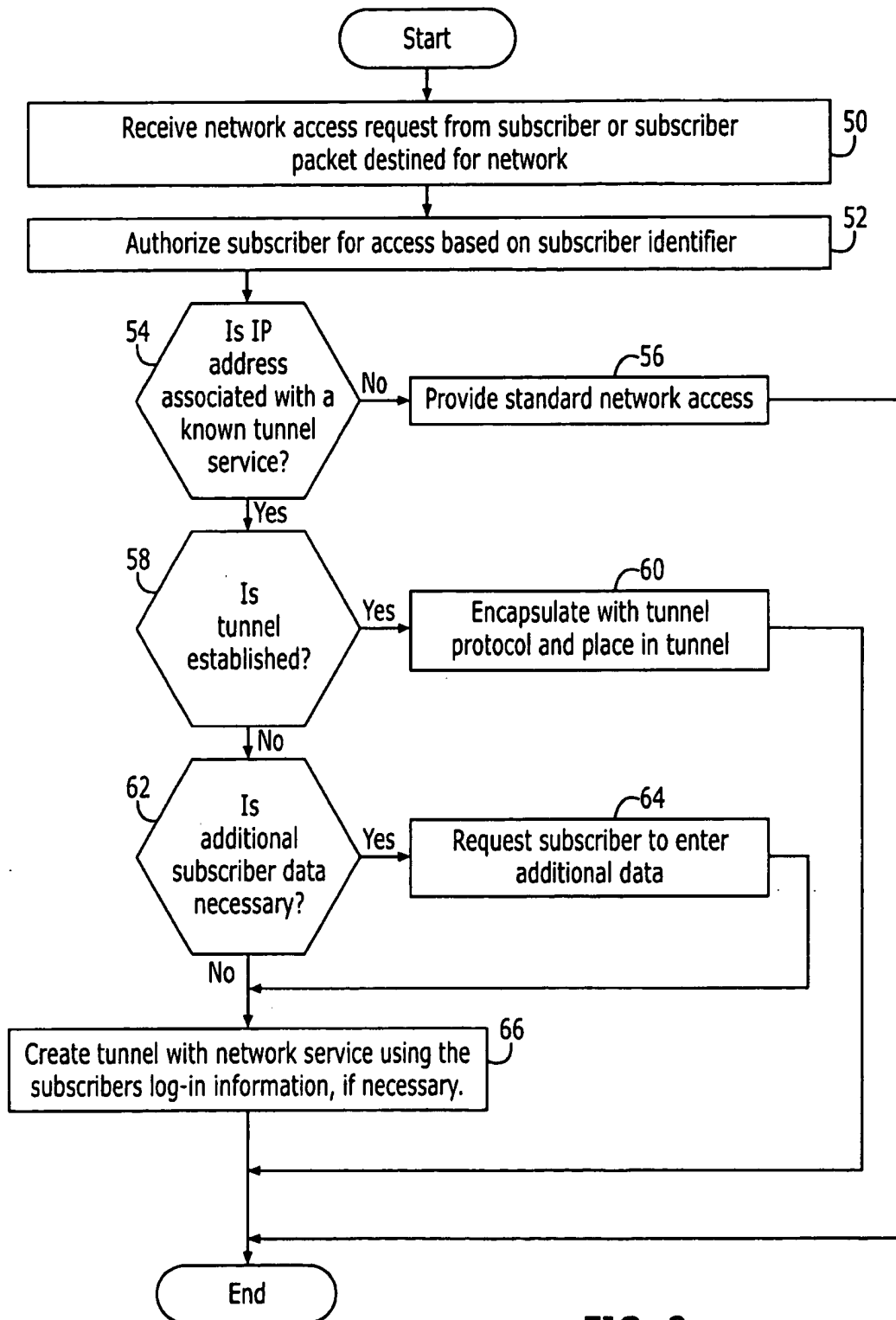


Diagram 10 illustrates a network architecture. A client 14' is connected to a server 16. The server 16 is connected to a network 12. The network 12 includes an AAA module 30, a session mgmt module 42, and a tunnel mgmt module 44. The network 12 is connected to the Internet 40, which is connected to two servers 20' and 20''.

**FIG. 2**



**FIG. 3**